BASTERIA 45: 85-86, 1981

Tridonta zelandica Janssen & Van der Slik, 1974, a junior synonym of Astarte alaskensis Dall, 1903

A.W. JANSSEN

Rijksmuseum van Geologie en Mineralogie, Leiden, The Netherlands

Tridonta (Tridonta) zelandica was described by Janssen & Van der Slik (1974: 13, pl. 3 figs. 4-5) from reworked fossil material washed ashore on the North Sea beach between Domburg and Westkapelle in the Dutch province of Zeeland. The stratigraphical age of this species was estimated by its authors as Early Pleistocene (marine Icenian).

Some time ago the publication of Petrov (1966) became available to me. This author describes Quaternary mollusc faunas from the Chukotsk Peninsula in eastern Siberia. The illustrations of *Astarte alaskensis* on his pl. 13 immediately reminded me of our *T. zelandica.*

A. alaskensis was introduced by Dall (1903: 946, pl. 63 fig. 2) as a living species from the northern Pacific. Dr. Richard S. Houbrick (Smithsonian Institution, Washington D.C., U.S.A.), to whom I am very obliged, was kind enough to send me several lots of Recent specimens of *A. alaskensis* from localities near Alaska. The study of this material, as well as the literature data, convinced me of the identity of both taxa. Thus *T. zelandica* has to be considered a junior synonym of *A. alaskensis* and should be known as *Tridonta (Tridonta) alaskensis* (Dall, 1903).

It is interesting to note the presence of this species as a fossil in the Netherlands. Its distribution as known at present is given in fig. 1. It is obvious that the Dutch locality is very isolated from its known fossil and Recent distribution in the northern Pacific. Migration must have taken place over the North, a distance of roughly 6,000 km! The actual distribution of *T. alaskensis* in the cold seas of the northern Pacific agrees comfortably

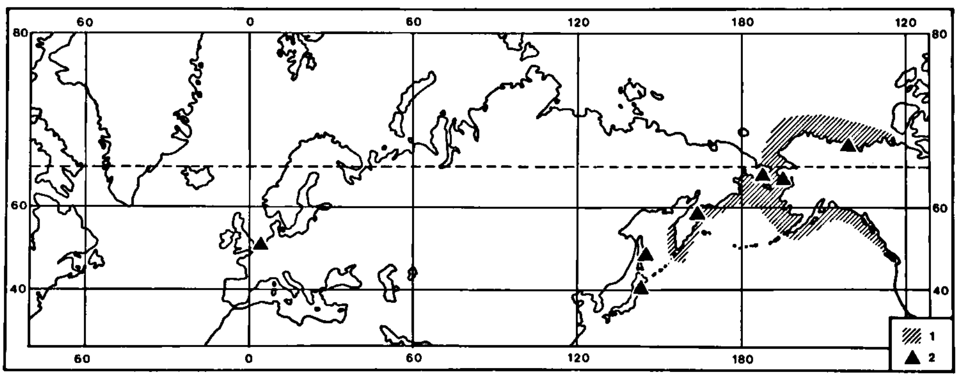


Fig. 1. Recent (1) and Quaternary (2) distribution of *Tridonta (T.) alaskensis.* Modified after Petrov (1966).

with the idea that the Dutch material is of Early Pleistocene age, as faunas of this age may reflect arctic conditions.

The occurrence of this species in Quaternary deposits of the North Sea basin is an indication that further unnoticed similarities in the mollusc faunas may occur. So, for instance, the Quaternary ***Astarte invocata*** Merklin & Petrov, 1962 (Petrov, 1966: 213, pl. 15 fig. 1-7) from the Chukotsk Peninsula might very well be a junior synonym of ***Tridonta (T.) withami*** (Smith, 1839), which latter species is known from Quaternary deposits at Bridlington (U.K.).

REFERENCES

DALL, W.H., 1903. Synopsis of the family Astartidae, with a review of the American species. - Proc. U.S. natn. Mus. 26 (1342): 933-951.

JANSSEN, A.W., & L. VAN DER SLIK, 1974. Bemerkungen zu der Astartiden-Fauna des jüngeren Känozoikums des Nordseebeckens. - Scripta Geol. 22: 1-23.

PETROV, O.M., 1966. Stratigraphy and fauna of marine molluscs in the Quaternary deposits of the Chukotsk Peninsula. - Trudy Geol. Inst. Akad. Nauk S.S.S.R. 155: 1-290 (in Russian).

SAMENVATTING

De soort *Tridonta (T.) zelandica* Janssen & Van der Slik, 1974, beschreven als aangespoeld fossiel van het strand tussen Domburg en Westkapelle, blijkt identiek te zijn aan *Astarte alaskensis* Dall, 1903, die in het Kwartair en in de recente fauna voorkomt in het arctische deel van de Stille Oceaan. De juiste benaming voor het Nederlandse materiaal is dus *Tridonta (Tridonta) alaskensis* (Dall, 1903). Het voorkomen tijdens het Pleistoceen in Nederland, ca. 6000 km van het hoofdverspreidingsgebied verwijderd, is een indicatie dat er wellicht meer overeenkomsten zijn tussen de (koude) kwartaire fauna's van het Noordzeebekken en die van de noordelijke Pacific. Dit zou bijv. ook het geval kunnen zijn met *Astarte invocata* Merklin & Petrov uit Oost-Siberië en *Tridonta withami* (Smith) uit Bridlington, Engeland.